

Rubus Enslenii Tratt.

In good soil in woods, Laurel Land, Hartsville, S. C. April 24, 1910. This is the one-flowered plant considered by some a form of *R. procumbens*, and I can find no record of its occurrence in South Carolina. The typical *R. procumbens* is found in Chapel Hill, N. C., where it forms dense mats in wet places.

Carex texensis (Torr.) Bailey.

It covers the ground under trees, in the yard of Dr. A. A. Kluttz, Chapel Hill, N. C. So far it has not been published from either of the Carolinas, but Homer D. House has collected it at Clemson College, S. C. It is now known from Southern Illinois to the Carolinas, Georgia, and westward.

This plant makes a good substitute for grass on lawns that are damp and densely shaded.

Oenothera Drummondii Hook.

This beautiful evening primrose was collected in very sandy soil along the trolley way on Sullivan's Island, S. C., Aug. 28, 1909. It has been collected from this island before (Herbarium of the New York Botanical Garden) and from Ormond, Florida (Gray Herbarium) but I cannot find that it has been reported from South Carolina or Florida, or indeed collected from any other of the Southern States east of Texas.

CHAPEL HILL, NORTH CAROLINA.

ADDITIONS TO THE TREE FLORA OF THE UNITED STATES

BY JOHN K. SMALL

In several previously published papers* I recorded a number of trees new to silva of the United States. They were brought to light through exploration in southern Florida, and are as follows: *Serenoa serrulata*, *Quercus Rolfsii*, *Chrysobalanus pello-carpus*, *Alvaradoa amorphoides*, *Suriana maritima*, *Cicca disticha*, *Mangifera indica*, *Rhus leucantha*, *Ilex Krugiana*, *Hibiscus Rosa-*

*Bull. N. Y. Bot. Gard. 3: 419-440; Torrey 7: 123-125; Bull. Torrey Club 37: 513-518.

sinensis, *Tetrazygia bicolor*, *Sapota Achras*, *Solanum verbascifolium*, and *Genipa clusiifolia*. The following additions were discovered during more recent exploration in southern Florida.

ANONA PALUSTRIS L.

The ALLIGATOR APPLE grows abundantly in open moist hammocks on Long Key (Everglades) and in similar situations west of Camp Jackson (Small & Wilson no. 1648). The plants are easily distinguished from those of *Anona glabra*, which is common in southern Florida, by the flowers; these are usually only about one half the size of those of *Anona glabra* and have more pointed sepals and petals. The outer petals, too, are much longer than the inner ones.

ANONA SQUAMOSA L.

The preceding species, *Anona palustris*, like *Anona glabra*, is native in Florida. On the contrary, the SUGAR APPLE, *Anona squamosa*, is most likely an introduced species. While collecting on Lower Metacumbe Key, Florida, in August, 1907, I found specimens of this species thoroughly naturalized in hammocks on different parts of the island. Exploration on other keys long under cultivation would probably yield further stations for this species.

CAPPARIS CYNOPHALLOPHORA L.

The BAY-LEAVED CAPER TREE although common in southern peninsular Florida and on the keys seems to be but rarely encountered as a tree. The writer had the good fortune to find it in January, 1909, growing as a tree on both Soldier Key and Key Largo. In both localities it reached a height of about twenty-five feet. Mr. Blodgett found it many years ago on Key West growing to a height of twenty feet.

BRYSONIMA LUCIDA (Sw.) DC.

The LOCUST-BERRY, although known to reach the proportions of a tree in the West Indies, in Florida has heretofore been known only as a shrub, and usually a rather small shrub. However, it was found on several of the small keys at the southwestern extremity of the Everglade Keys growing as a tree in January,

1909, by Mr. Carter and the writer. The maximum height it attained was about twenty-five feet.

COLUBRINA COLUBRINA (L.) Millsp.

The several collections of the WILD COFFEE, made both on the keys and the mainland of Florida appear not to have revealed it in any form but a shrub. Mr. Blodgett records it as a shrub on Key West reaching a height of twelve feet. During more recent exploration in the Everglades Mr. Carter and the writer found it on the main island of the Long Key group as a small shrub. During the fall of 1904 the writer found it very common in hammocks about the middle of the homestead country, some fifteen miles southwest of Cutler. Trees thirty to forty feet tall and six to eight inches in diameter were not uncommon.

PARITUM TILIACEUM (L.) Juss.

The MAHOE, an old world plant established on the Florida Keys for many years, did not reach the proportions of a tree or become established on the mainland, except perhaps in cultivation, until the present century. In 1905 Mr. S. H. Richmond sent me specimens from trees growing in the shore-hammock near Cutler. These trees evidently sprung from seeds brought there by some natural means from the keys. Although this is the only record we have of the tree occurring on the mainland, it is to be expected along the shore of the bay at any point between Cutler and Cape Sable. While in Miami in the summer of 1907 Mr. Richmond gave me additional specimens from the same station.

LUCUMA NERVOSA A. DC.

The EGG FRUIT has evidently been a naturalized member of our flora for a number of years. This fact was brought to light after the severe hurricane which swept over southern peninsular Florida and the upper keys during the fall of 1906. The wind and flood during this storm swept the forests of Elliott's Key clean of the under brush and thus allowed easy access to portions of the hammocks which were hitherto almost inaccessible. At different points in the forest we found fine trees which had evi-

dently become established there many years ago, while young trees were springing up from seed produced by the older trees.

HAMELIA PATENS Jacq.

The HAMELIA grows in hammocks in the southern two thirds of peninsular Florida and in the hammocks of the Florida Keys, but it seems never to have been observed except as a shrub. However, the writer has found specimens on the Everglade Keys growing in the dense hammocks between Cocoanut Grove and Cutler, reaching a height of 20 feet and with a trunk diameter of fully 6 inches.

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TRAGOPOGON PRATENSIS × PORRIFOLIUS

BY EARL E. SHERFF

So far as the writer can find, the presence in the United States of hybrids between our two well-known species of salsify, *Tragopogon pratensis* L. and *T. porrifolius* L., has not heretofore been observed with certainty. Britton and Brown* state that "an apparent hybrid between . . . [these two species] . . . has been noticed at New Brunswick, N. J." But more recently, Britton† omits mention of this "apparent" hybrid and, similarly, Gray's New Manual‡ fails to record it.

That there exists, however, within the two species in question a potentiality for hybridization, was demonstrated by Linnaeus§ as early as 1759. By removing the pollen of *T. pratensis* and placing upon the stigmas some pollen from *T. porrifolius* he secured hybrids with an intermediate color scheme in the flowers. Instead of the yellow peculiar to *T. pratensis* or the purple peculiar to *T. porrifolius*, the heads of the hybrid exhibited both red and yellow. These colors were somewhat approximated later in spontaneous hybrids observed by J. Lange|| in the Danish

*Illustrated Flora, p. 269. 1893. New York.

†Man. of Flora of Northeastern States and Canada. 1905. New York.

‡Gray's New Manual. 1908. New York.

§Amoenitates academicae, X., p. 126. 1790. Erlangen.

||See Focke, Pflanzen Mischlinge, p. 222. 1881. Berlin.